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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NEURAUTER, GEORGE C

ART UNIT PAPER NUMBER

2143

DATE MAILED: 11/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/966,830	Applicant(s) BOTTOM ET AL.	
	Examiner George C. Neurauter, Jr.	Art Unit 2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14-16 and 21-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14-16, and 21-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-11, 14-16, and 21-23 are currently presented and have been examined.

Response to Arguments

Applicant's arguments filed 10 October 2006 have been fully considered but they are not persuasive.

The Applicant argues that Fee fails to teach or reasonably suggest continuously storing replicated health metrics and performance metrics from each server in the chassis to avoid reconfiguring the active manager server when replacing a failed server with a new server. The Examiner is not persuaded by these remarks. As shown previously, Fee expressly discloses continuously storing replicated health and performance metrics from each server in the chassis by monitoring the SMB for "messages from other modules in order to determine...the presence or absence of a module, the ability to communicate with a module over the SMB1...[and]...the SMB10, the current status, profile...information for other modules" (see column 7, lines 19-28) and builds a database or "slot table" that contains health and performance metrics or "other information regarding the module such as CPU status, CPU profile..." (column 7, lines 17-18) wherein "Discovery only maintains the 'current state' of the chassis" (column 7, lines 29-30). Note that Fee also

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discloses that "Each module will continuously receive information from the other modules" (see column 2, lines 62-63)

Further, the limitation "to avoid reconfiguring the active manager server when replacing a failed server with a new server" is interpreted by the Examiner wherein the active manager server is not on the failed server since the management server would not operate if it were on the failed server. The claim does not specifically recite what type of reconfiguration is avoided and who or what element within the claim replaces the failed server with the new server. Therefore, the Examiner interprets wherein reconfiguration of the active manager server is not performed since the active manager server is not affected by the failed device and no reconfiguration of the active manager server is required. Therefore, Fee meets this limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 3-4, 6, 9-11, 14-16, 21, and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 5 522 042 A to Fee et al.

Regarding claim 1, Fee discloses a method comprising:

electing a first server (referred to throughout the reference as "module") as active manager server ("best location...to run the chassis application(s)"), wherein the first server resides in a chassis and the active manager to run services for each server in the chassis; continuously storing replicated health metrics and performance metrics from each server in the chassis (in a "slot table" maintained by each "module") to avoid reconfiguring the active manager server when replacing a failed server with a new server; receiving an indication that the first server had failed, wherein the indication is based on the health matrices and performance matrices; based on receiving the indication, electing a second server to replace the first server to act as the active server manager based on predetermined criteria, wherein the second server resides in the chassis; receiving an indication that the first server has failed, wherein the indication is based on health matrices and performance matrices; automatically replacing the first server with the second server as the active manager server in response to the indication received; and

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redirecting requests for the first server to the second server.

(column 3, lines 33-47; column 7, lines 19-39; column 7, line 47-column 8, line 5, specifically column 7, lines 49-53)

Regarding claim 3, Fee discloses the method of claim 1, further comprising:

extracting the health metrics and performance metrics ("resources"), wherein the health metrics and performance metrics comprise dynamic health metrics and performance metrics; replicating the health metrics and performance metrics, wherein the replicating the health metrics and performance metrics is performed periodically; and dynamically updating a database ("slot table") populated with the health metrics and performance metrics. (column 7, lines 19-39)

Regarding claim 4, Fee discloses the method of claim 3, wherein the health metrics comprise one or more of server-based health metrics and performance metrics. (column 7, lines 19-39)

Regarding claim 6, Fee the method of claim 3, wherein the performance metrics comprise one or more of operating system-based metrics, kernel-based metrics, and server-based metrics. (column 7, lines 19-39)

Regarding claim 9, Fee discloses the method of claim 3, further comprising replicating identification information,

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wherein the identification information comprises static identification information. (column 7, lines 29-31)

Regarding claim 10, Fee discloses a high-availability management system comprising:

a chassis comprising a plurality of slots; (column 4, lines 44-49)

a plurality of server modules coupled with the plurality of slots, wherein a first server module of the plurality of server modules is elected as an active manager server, the active manager to run services for each of the plurality of server modules; a database coupled to the plurality of server modules ("slot table" maintained by each "module") to continuously storing replicated health metrics and performance metrics from each server in the chassis to avoid reconfiguring the active manager server when replacing a failed server with a new server; a second server module elected, based on receiving the indication, to replace the first server to act as the active manager server based on a predetermined criteria; an indication to automatically determine if the first server module as failed or has been overloaded, wherein the indication is generated based on health metrics and performance metrics; a second server module to automatically replace the first server module as the active manager server in response to the indication received;

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and a redirection process to redirect requests for the first server module to the second server module. (column 4, lines 44-49; column 7, lines 19-39; column 7, line 47-column 8, line 5, specifically column 7, lines 49-53)

Regarding claim 11, Fee discloses the high-availability management system of claim 10, further comprising a database ("slot table") coupled to the chassis for storing information regarding one or more of chassis identification, slot identification, and server module type. (column 6, line 50-column 7, line 19, specifically "Chassis IP address", "Slot ID", and "Module Type")

Regarding claim 14, Fee discloses the high-availability management system of claim 10, wherein the election of the first server module as the active manager server is performed by middleware, wherein the middleware is a software. (column 7, line 47-column 8, line 5, specifically column 7, lines 62-65)

Regarding claim 15, Fee discloses the high-availability management system of claim 13, wherein the election of the second server module as the active manager server is performed by the middleware. (column 7, line 47-column 8, line 5, specifically column 7, lines 62-65)

Regarding claim 16, Fee discloses the high-availability management system of claim 10, wherein the first server module

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is elected from a group comprising one or more of servers, telephone line cards, and power substations. (column 4, lines 44-49; column 7, line 47-column 8, line 5, specifically column 7, lines 49-61, specifically line 60)

Claims 21 and 23 are also rejected since claims 21 and 23 recite a machine readable medium that contain substantially the same limitations as recited in claims 1 and 3 respectively.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 2 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al.

Regarding claim 2, Fee discloses the method of claim 1, wherein the election is performed based on a predetermined criteria. (column 7, line 47-column 8, line 5, specifically column 7, lines 53-61)

Fee does not expressly disclose wherein the predetermined criteria comprises electing a server with the lowest internet protocol (IP) address as the active manager server, however, Fee does disclose electing a server with the lowest slot number as the active manager server and also broadly suggests that other form of predetermined criteria may be used to elect an active

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manager server if necessary (column 7, line 47-column 8, line 5, specifically column 7, line 67-column 8, line 3). Fee also discloses that each server has an IP address (column 7, line 15).

It would have been obvious to one skilled in the art at the time the invention was made to elect a server based on the lowest IP address because the Applicant has not disclosed that using the limitation undisclosed in Fee provides any sort of an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with the method of electing a active manager server based on the lowest slot number described in Fee as recited in the claim because, in absence of any disclosure by the Applicant of specifically why electing based on the lowest IP address has any sort of advantage over, for example, a random selection of a server, Fee's method of electing an active manager server based on the lowest slot number or any other predetermined criterion as shown in Fee would perform equally as well as the Applicant's method of selecting by the lowest IP address, something which Fee suggests is possible based on the above disclosures.

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Claim 22 is rejected since claim 22 recites a machine readable medium that contains substantially the same limitations as recited in claim 2.

Claims 5, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fee et al. in view of US Patent Application Publication 2002/0062454 A1 to Fung.

Regarding claim 5, Fee discloses the method of claim 3.

Fee does not expressly disclose wherein the health metrics comprise one of more of tracking power levels and temperature levels based on predetermined thresholds, however, Fee does suggest that metrics other than those disclosed may be also be tracked (column 7, lines 33-39)

Fung discloses the above limitations (paragraphs 0138-0139)

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the method as disclosed in Fee with the tracking of power levels and temperature levels as disclosed in Fung since Fung discloses that tracking power levels enables an active server manager ("Management Module") to shut down or cycle power on a server module (paragraph 0139, lines 2-6) and tracking temperature levels enables an active server manager to control the operation of fans to keep temperatures at an appropriate level (paragraph 0138, lines 2-6). Fung also discloses that predetermined

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thresholds enable notification of a user or the active server manager (paragraph 0138, lines 6-8; paragraph 0139, lines 10-12) Based on these specific advantages disclosed in Fung and that both references are directed to server module monitoring using an active server module, one of ordinary skill in the art would have appreciated the advantages disclosed in Fung and would have been motivated to combine the teachings of the references since both references would be considered to be analogous based on their related fields of endeavor.

Regarding claim 7, Fee discloses the method of claim 3, wherein the performance metrics comprise one ore more of tracking central processing unit (CPU) utilization and memory utilization. (column 7, lines 33-39)

Fee does not expressly disclose wherein tracking the CPU utilization and memory utilization is based on predetermined thresholds, however, Fund does disclose these limitations (paragraph 0138, lines 6-8; paragraph 0139, lines 10-12).

Claim 7 is rejected since the motivations regarding the obviousness of claim 5 also apply to claim 7.

Regarding claim 8, Fee discloses the method of claim 3.

Fee does not expressly disclose wherein the method further comprises altering whenever the health metrics or the performance metrics violate the predetermined thresholds,

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however, Fung does disclose these limitations (paragraph 0138, lines 6-8; paragraph 0139, lines 10-12).

Claim 8 is rejected since the motivations regarding the obviousness of claim 5 also apply to claim 7.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George C. Neurauter, Jr. whose telephone number is (571) 272-3918. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM Eastern.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/gcn/



JEFFREY PWU
PRIMARY EXAMINER